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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,825	09/29/2000	Jessica A. Aldrich	NU-98-5-1 (205-14)	9516

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EXAMINER

HENDRICKS, KEITH D

ART UNIT

PAPER NUMBER

1761

DATE MAILED: 12/17/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

SN-5

Office Action Summary	Application No. <i>09/675,825</i>	Applicant(s)
	Examiner	Group Art Unit <i>17c1</i>

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- Responsive to communication(s) filed on _____.
- This action is FINAL.
- Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- | | |
|--|--|
| <input checked="" type="checkbox"/> Claim(s) <u>1-20</u> | is/are pending in the application. |
| <input type="checkbox"/> Of the above claim(s) _____ | is/are withdrawn from consideration. |
| <input type="checkbox"/> Claim(s) _____ | is/are allowed. |
| <input checked="" type="checkbox"/> Claim(s) <u>1-20</u> | is/are rejected. |
| <input type="checkbox"/> Claim(s) _____ | is/are objected to. |
| <input type="checkbox"/> Claim(s) _____ | are subject to restriction or election requirement |

Application Papers

- The proposed drawing correction, filed on _____ is approved disapproved.
- The drawing(s) filed on _____ is/are objected to by the Examiner
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- All Some* None of the:
 - Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No. _____.
 - Copies of the certified copies of the priority documents have been received
in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Information Disclosure Statement(s), PTO-1449, Paper No(s). <u>4</u> | <input type="checkbox"/> Interview Summary, PTO-413 |
| <input checked="" type="checkbox"/> Notice of Reference(s) Cited, PTO-892 | <input type="checkbox"/> Notice of Informal Patent Application, PTO-152 |
| <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review, PTO-948 | <input type="checkbox"/> Other _____ |

Office Action Summary

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DETAILED ACTION

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The specification to which the oath or declaration is directed has not been adequately identified. See MPEP § 601.01(a).

The current declaration describes that "which is claimed and for which a patent is sought on the invention entitled WET CREPE, IMPINGEMENT-AIR DRY PROCESS FOR MAKING ABSORBENT SHEET, the specification of which is attached hereto."

The title of the invention of the specification and claims attached is identified elsewhere as "Sweet-stable acidified beverages."

Claim Rejections - 35 USC § 112

Claims 1-14 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "non-digestible" is indefinite, as it is unclear within whom this is to be non-digestible. Many oligosaccharides which cannot be digested by humans, can be broken down by other animals, bacteria, etc.

The liquid in which the oligosaccharide of the claims is to be "soluble", is unclear. See at least claims 1, 14, 20.

The term "significant", in claims 1 and 20, is a relative term which renders the claim indefinite. The term is not defined by the claim, the specification does not provide a standard for

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ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In claims 1, 14 and 20, the phrases "contribute substantially stabilized sweetness to said beverage over time" (claims 1 and 20) and "stabilized sweeteners and extended shelf life" (claims 1 and 14) are unclear for the following reasons.

- The terms "stabilized", and "stabilized... over time", are indefinite, in part because the conditions against which the sweetness (or sweetener) is stabilized, are unclear.
- It is unclear as to what properties and conditions play a role in the de-stabilization of the sweetener, especially since the original oligosaccharide "undergoes significant hydrolysis within about 4 weeks".
- The period of time over which the stabilized sweetness is "contributed" (or extended), is unclear. It is unclear if the period of time refers to the stabilization of the sweetener, or to the property of "sweetness" itself.
- The term "extended shelf life" is rejected for reasons similar to those listed immediately above. The term "extended" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.
- In claim 1, the phrase "substantially stabilized sweetness" is a relative phrase which renders the claim indefinite, due to the term "substantially". The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.
- The intended, functional and/or practical difference between the recitation in claims 1 and 20 of "stabilized sweetness", and "stabilized sweetener" of claim 14, is unclear. While a

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sweetener is a physical compound, the term "sweetness" is a descriptive characteristic property.

It is suggested that claim 5 be amended to recite the phrase "further comprises", as phosphoric acid is already described in claim 4, from which it depends.

Claim 10 is indefinite for the recitation of the phrase "wherein the oligosaccharide is inulin." Initially, the claim is dependent upon claim 8, which states that the "oligosaccharide comprises hexose or pentose monosaccharide units". However, inulin is made of almost entirely oligofructose (aka fructooligosaccharides), and is not stated in the specification to "comprise hexose or pentose monosaccharide units." One might then be led to believe claim 10 should depend from claim 9; however, reference to the specification at page 7, line 9, shows that "a distinction is made between inulin and oligofructose", i.e. inulin comprises oligofructose, but is not oligofructose, *per se*.

Similarly, claim 15 appears to improperly extend the limitations of claim 14 from which it depends, as "oligofructose" is not one of the recited options in part (e) of claim 15.

Part (e) of claim 14 is indefinite and confusing, as it is unclear if both the inulins and the fructans are to have the recited caloric value, or only the fructans. It is suggested that the claim be amended to state that "wherein each [or "wherein both"] of said inulins and fructans...".

Claims 17-19 are indefinite. Claims 17-18 recite "said high intensity sweetener composition", whereas a "composition" is not found in claim 14, from which they depend. Rather, the sweetener compound alone is recited. To this point, claims 18-19 are indefinite, as they recite a high intensity sweetener of both aspartame and acesulfame K, whereas claim 14, part (d) provides for "a" single high intensity sweetener.

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Claim 20 is indefinite for the recitation of the phrase "hydrolysis by about 0.5-50 per cent by weight of said oligosaccharide." It is unclear as to what is intended by the phrase, whether (a) 0.5-50 percent (by weight) of the oligosaccharides are to undergo hydrolysis, (b) the total amount of oligosaccharides are hydrolyzed to 0.5 -50 percent of their original weight, or (c) some other interpretation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-3,6, 8-12, 14-18 and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by Admiraal et al. (WO 98/19564, of record).

Admiraal et al. discloses the production of sweet-stable soft drinks, comprising a flavor such as tea (pg. 1), water, dipeptide sweetener(s) such as aspartame (pg. 2), and a fructosyl saccharide such as inulin, fructooligosaccharides, and fructans (each comprising individual hexoses units such as fructose). The pH is maintained between 2.5 to 4 with an acid component, which is exemplified as citric acid in the example at page 15 (in the syrup used for all examples). The middle of page 2 discloses that combinations or blends of the dipeptide sweeteners with other sweeteners is included. Specifically listed is aceulfame-K to be blended with the dipeptide sweetener aspartame or alitame. At pages 5, 10 and throughout the patent, it is stated that the soft drink beverages sweetened with a dipeptide (i.e. high-intensity) sweetener and a fructosyl saccharide, "retain a stable or virtually stable level of sweetness for a long time, e.g. 3 to 6 months at a temperature of 20-25 degrees". Several passages, including page 14, discuss the "breakdown products" of the inulin and fructosyl saccharides. As the reference discloses the stability of such

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compositions in acidic environments, such as acidified beverages, no unexpected results are seen from the instant invention at this time.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

i) Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell, and Wiedmann et al., in view of the combination of Yatka et al. and Nakel et al. This rejection was also present in the parent application, 09/186,275.

Mitchell discloses "methods and compositions for inhibiting decomposition of aspartame". The reference states that the high-intensity peptide sweetener aspartame, "and similar sweeteners" (col. 5, line 55), become unstable under acidic and/or high temperature conditions. The compositions of Mitchell interact synergistically to stabilize the functional groups of these peptide sweeteners, thus providing for "improved shelf-life and stability of aspartame" (col. 4, lines 2-3). The compositions allow for the stable addition of aspartame to acidic drinks (col. 4, line 5), "which was previously unavailable due to the instability of aspartame at higher temperatures and acidic or basic pH's." The compositions include inulin from chicory or Jerusalem artichoke powder, for example, and aspartame.

Wiedmann et al. discloses "synergistic sweetener" compositions, combining high-intensity peptide sweeteners, such as aspartame and acesulfam(e) K, with soluble fibers such as oligofructose and inulin.

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Yatka et al. discloses the fact that oligofructose stabilizes aspartame in chewing gum compositions. It teaches the known fact that "inulin is the long chain oligofructose found in the plant species" (col. 1). The reference teaches the use of both inulin and oligofructose, to stabilize aspartame.

Nakel et al. teach of the production of beverages supplemented with calcium. The reference is cited herein for its general teachings of cola beverage compositions, which are stated to include mixtures of citric acid, malic acid and phosphoric acid such that the pH is from 3.0 to 4.5 (col. 10), as well as cola flavors, mono- and di-saccharides such as sucrose, glucose, invert sugar, fructose, and finally artificial sweeteners such as aspartame (col. 9).

Thus, it would have been obvious to one of ordinary skill in the art to have utilized the teachings of the reference to formulate a beverage composition comprising water, acids such as malic, citric and phosphoric, a high intensity sweetener such as aspartame or acesulfame K, and a soluble oligosaccharide, such as oligofructose/inulin/polyfructan (each mixtures of fructose polymers, with a glucose). The combination of inulin and/or oligofructose, with aspartame and/or acesulfame K, is clearly stated in Mitchell, Wiedmann et al. and Yatka et al for use as a sweetening combination. Mitchell and Nakel et al. provide motivation to utilize aspartame compositions in acidic beverages. The concept of combining aspartame (and/or acesulfame K), with inulin (and/or oligofructose), was overwhelmingly taught by the references, and known in the art prior to the instant invention. Mitchell discloses the stability of such compositions in acidic environments, such as acidified beverages. Thus, no unexpected results can be drawn from the instant invention.

Further, the further incorporation of common beverage ingredients such as the edible citric, malic and phosphoric acids, as well as cola flavorings, would have been an obvious step, in light of Nakel et al., which teaches that the pH of such beverages is adjusted with the acids to be from 3.0 to 4.5.

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ii) Claims 4-5,7, 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admiraal et al. (WO 98/19564, of record), taken as cited above.

The incorporation of common beverage ingredients such as the edible malic and phosphoric acids, would have been an obvious step, in light the teachings of the reference, which teaches that the pH of such beverages is adjusted with the acids to be from 2.5 to 4.0. Providing the particular ratio of aspartame to acesulfame K would not have involved an inventive step, and would have been obvious to ordinarily-skilled artisan, and well within the ordinary level of skill in the art. A wide ratios would have been easily set and utilized, based upon desired tastes, sweetness, type of beverage, etc.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Hendricks whose telephone number is (703) 308-2959.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano, can be reached at (703) 308-3959. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3602.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



KEITH HENDRICKS
PRIMARY EXAMINER